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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,162	01/02/2002	Doron Orenstien	42390P10918	7820

8791 7590 10/21/2003

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EXAMINER
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LAU, TUNG S

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/038,162

Applicant(s)

ORENSTIEN ET AL.

Examiner

Tung S Lau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

1. This is in response to the appeal brief filed 8-8-2003, with respect to claims 1-27 have been fully considered and are persuasive. The action on paper #4 has been withdrawn.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Grochowski et al. (U.S. Patent 6,564,328).

Regarding claim 1:

Grochowski discloses a microprocessor comprising: at least one throttling mechanism (Col. 2, Lines 19-37); and a thermal control subsystem to estimate an amount of power used by said microprocessor and to control said at least one throttling mechanism based on said estimated power usage (Col. 2, Lines 19-37, fig. 5), wherein the thermal control subsystem is in communication with at least one counter and the thermal control subsystem estimates the amount of power

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used by the microprocessor based on information provided by the at least one counter (fig. 4, unit 420, Col. 6-7, Lines 66-8).

Regarding claim 8:

Grochowski discloses a method comprising: receiving information provided by at least one counter (fig. 4, unit 420, Col. 6-7, Lines 66-8); estimating an amount of power used by a microprocessor based on the information provided by the at least one counter; and controlling at least one throttling mechanism incorporated in the microprocessor based on said estimated power usage (Col. 2, Lines 19-37).

Regarding claim 15:

Grochowski discloses a thermal control system comprising: a power usage estimator coupled to at least one counter (fig. 4, unit 420, Col. 6-7, Lines 66-8), the power usage estimator to estimate an amount of power used by a microprocessor based on information provided by the at least one counter (fig. 4, unit 420, Col. 6-7, Lines 66-8); and a throttling control unit to control at least one throttling mechanism incorporated in the microprocessor based on the estimated amount of power used by the microprocessor (Col. 2, Lines 19-37).

Regarding claim 19:

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Grochowski discloses a machine-readable medium that provides instructions, which when executed by a microprocessor cause said microprocessor to perform operations comprising: receiving information provided by at least one counter (fig. 4, unit 420, Col. 6-7, Lines 66-8); estimating an amount of power used by a microprocessor based on the information provided by the at least one counter; and controlling at least one throttling mechanism incorporated in the microprocessor based on said estimated power usage (Col. 2, Lines 19-37).

Regarding claims 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 17, 18, 20-27:

Grochowski discloses the amount of power used based on the number of occurrences of at least one activity (fig. 4-5), based on current clock frequency (Col. 2, Lines 6-17), averaging power usage in sampling (Col. 1, Lines 27-63), power is greater than the threshold level (fig. 5), deterministic manner (fig. 5), including instruction decoding (Col. 4-5, Lines 60-23), counting the number of occurrences of at least one activity performed by the microprocessor within a sampling time period (fig. 4); and adjusting the number of occurrences of said at least one activity according to current operating frequency and voltage level of the microprocessor (fig. 5), estimated amount of power used by the microprocessor against a threshold (fig. 5, unit 540); activating said at least one throttling mechanism if said estimated power used by the microprocessor is greater than said threshold; and deactivating said at least one throttling

mechanism if said estimated power used by the microprocessor is less than said threshold (fig. 5); applying estimated power usage values (fig. 5).

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.


The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TC2800 RightFAX Telephone Numbers : TC2800 Official Before-Final RightFAX - (703) 872-9318, TC2800 Official After-Final RightFAX - (703) 872-9319

TC2800 Customer Service RightFAX - (703) 872-9317

  
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